CLAIMS

1. A process for making a semiconductor structure, comprising:

etching away portions of a conductive layer on a substrate with a plasma, wherein said conductive layer is adhered to said substrate by an adhesive layer of at most 500 angstroms in thickness.

2. The process of claim 1, wherein said plasma is formed by a decoupled plasma source.

3. The process of claim 1, wherein said conductive layer and said adhesive layer after etching have a combined thickness of at most 3000 angstroms.

4. The process of claim 1, wherein said adhesive has a thickness of at most about 100 angstroms.

5. The process of claim 1, wherein said conductive layer and said adhesive layer after etching have a combined thickness of at most 2600 angstroms.

6. The process of claim 1, wherein said adhesive layer comprises polysilicon, and said conductive layer comprises a material selected from the group consisting of tungsten and tungsten silicide.

7. The process of claim 6, wherein said substrate comprises at least one of the group consisting of silicon oxide and silicon nitride.

8. The method of claim 1, wherein said plasma comprises chlorine atoms.

9. The method of claim 1, wherein said plasma comprises chlorine atoms and oxygen atoms.

10. The method of claim 1, wherein said etching is conducted at a pressure of about 2 mTorr to about 4 mTorr.

11. The method of claim 9, wherein said etching is conducted at a pressure of about 2 mTorr to about 4 mTorr.

12. The method of claim 11, wherein a source of said chlorine atoms is chlorine gas provided at a flow rate of between about 40 and about 100 sccm, and a source of said oxygen atoms is oxygen gas provided at a flow rate of about 4 to about 12 sccm.

13. The method of claim 12, wherein said plasma is produced with a plasma flux source power of about 800 watts to about 1500 watts and a plasma bias power of about 50 watts to about 150 watts.

14. A method of making a semiconductor device, comprising:

making a semiconductor structure by the method of claim 1, and forming a semiconductor device comprising said semiconductor structure.

15. The method of claim 14, wherein said semiconductor device is a non-volatile memory.

16. A method of making an electrical device, comprising:

making a semiconductor device by the method of claim 14, and forming an electrical device comprising said semiconductor device.

17. A semiconductor structure produced by the process of claim 1.

18. A semiconductor structure produced by the process of claim 2.

19. A semiconductor structure produced by the process of claim 6.

20. A semiconductor structure produced by the process of claim 10.

21. A method of making a semiconductor structure, comprising etching a conductive layer, wherein said conductive layer is on an adhesive layer having a thickness of at most 500 angstroms, and wherein said adhesive layer is on a substrate.

22. The method of claim 21, wherein said etching is done with a plasma formed by a decoupled plasma source.

23. The method of claim 22, wherein said etching is conducted at a pressure of about 2 mTorr to about 4 mTorr.

24. The method of claim 23, wherein said plasma comprises chlorine atoms and oxygen atoms.

25. The process of claim 24, wherein said adhesive layer comprises polysilicon, and said conductive layer comprises a material selected from the group consisting of tungsten and tungsten silicide.

26. The process of claim 25, wherein said substrate comprises at least one of the group consisting of silicon oxide and silicon nitride.

27. A plasma, comprising chlorine atoms and oxygen atoms at a pressure of between about 2 mTorr and about 4 mTorr, wherein said plasma is formed by a decoupled plasma source.

28. The plasma of claim 27, wherein said decoupled plasma source has a flux source power of about 800 watts to about 1500 watts and a plasma bias power of about 50 watts to about 150 watts.

29. A method of making a plasma, comprising feeding gases comprising chlorine and oxygen to a decoupled plasma source, and wherein the plasma is produced at a pressure of between about 2 mTorr and about 4 mTorr.

30. The method of claim 29, wherein chlorine is provided at a flow rate of between about 40 and about 100 sccm, and oxygen is provided at a flow rate of about 4 to about 12 sccm.

31. The method of claim 29, wherein said decoupled plasma source has a flux source power of about 800 watts to about 1500 watts and a plasma bias power of about 50 watts to about 150 watts.

32. The method of claim 30, wherein said decoupled plasma source has a flux source power of about 800 watts to about 1500 watts and a plasma bias power of about 50 watts to about 150 watts.

33. A method of etching, comprising etching with the plasma produced by the process of claim 29.

34. A method of etching, comprising etching with the plasma produced by the process of claim 32.